



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D350-636-012
Job Sheet 177525



Part No: D350-636-012

Job Qty: 1 ea

Part Name: Skidtube RH, Std Wearplates, DART (Apical) Cylindrical/Aerazur Float Comp.



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/14/18

Job Tracking No:

Due Date: 6/20/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: DWG D3492 REV E SHEET 1, D2750-042 REV G SHEETS 1,2,5,9 IPP Rev:I 02.09.25 IPP Rev:J 06-03-23 As per Rev D IPP Rev:K 06-07.13 As per dsi9343 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC IPP Rev:M 08-04-22 DD verified:EC IPP Rev:N 08-09-23 revF DD verified:ec IPP Rev:O 09-02-06 per PAR09-010 DD verf:EC IPP Rev:P 10.06.22 revise seq110 DD verf:EC IPP Rev:Q 10.10.01 as per IIN revH DDverf:EC IPP REV:R 13.08.27 PER ECN13-594 DD VERF:JLM

Ship Via:



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Container No: S080833



Part: D350-636-012

Job No: 177525

Serial No/Batch: S080833

Revision:

Inspector:

Exp Date:

Instructions:

Date: 06/13/18

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		6/20/18	0.00	0.00	Start Up Skidtubes-1		10/2
110	Skidtubes	1 pcs		6/20/18	0.00	4.36	Skidtubes-4		10/2 BE
120	QC	1 pcs		6/20/18	0.00	0.00	QC10		10 13-07-3
130	QC	1 pcs		6/20/18	0.00	0.00	QC5		10 13-07-3
140	HandFinish	1 pcs		6/20/18	0.00	0.91	HandFinish1		10 18-07-03
150	QC	1 pcs		6/20/18	0.00	0.00	QC7-2		10 BE
160	Skidtubes	1 pcs		6/20/18	0.00	4.36	Skidtubes-1		10 BE DAS
170	QC	1 pcs		6/20/18	0.00	0.00	QC10		38 DAS
180	QC	1 pcs		6/20/18	0.00	0.00	QC5		9-88 38
190	HandFinish	1 pcs		6/20/18	0.00	0.91	HandFinish2		10 18-07-03
200	SprayPaint	1 pcs		6/20/18	0.00	0.69	Spray Paint		10 JUL 20 2018
205	Outsource	1 pcs		6/20/18			ATE003-VC		NR
210	QC	1 pcs		6/20/18	0.00	0.00	QC14		10 18-7-23
230	HandFinish	1 pcs		6/20/18	0.00	0.91	HandFinish4		DAS
240	QC	1 pcs		6/20/18	0.00	0.00	QC5		38
250	Packaging	1 pcs		6/20/18	0.00	0.00	Packaging1-3		10 18-07-03
260	QC	1 pcs		6/20/18	0.00	0.00	QC4		10 JUL 27 2018
265	DC	1 pcs		6/20/18	0.00	0.00	DC		10 18-07-03
270	Packaging	1 pcs		6/20/18	0.00	0.00	Packaging3-1		10 JUL 27 2018
280	QC21-FG	1 Ea		6/20/18	0.00	0.00	QC21		10 18-07-03

Part Op 110 - 1- Pick D2600-3 Bent Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & Descriptions: DT8863A for second side only DT8863B for first side (detail K) 4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE. 6- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297". 7- Open up holes of Detail J to 0.297" (total of 2 holes per side) 8- Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004 9- Grind welds flush as per Dwg D2750

160 - 1- Open up holes of Detail L using hole saw and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2- Open up holes of Detail K using hole saw to 0.750" (total of 4 holes per side) as per dwg D2750. 3- Open float holes using uni-bit to .500" (4 per Side) 4- Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9) 5- Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7- Bond web D2739 in place as per QSI 015, let cure for 12hrs. A/R Sikaflex-291 batch: exp. date: ***ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)*** 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9) A/R Aluminum Rod batch: 9- At section AP-AP drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750 11- Spot face ground handling holes section (total of 4 places per side) as per dwg D2750 12- Deburr holes, ensure tube is free of all scratches before sending to paint.

180 - ***VERIFY C'BOARD IS GOOD***

190 - Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200 - 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: 5087461 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: 138886

210 - Inspect for foreign object per QSI 024

230 - 1-Install inserts as per dwg D2750 2-Inspect for Foreign Objects 3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: M132222 EXP DATE: 18/12 4- assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: M132222 5-Coat all exposed fasteners with "LPS Procyon" batch: M132222

265 - record fwd angle: 89.9 Photocopy blue file and type labels per PPP D350-636-012 CHG 007

270 - Package as per PPP D350-636-012

Job BOM					204608
Part / Item	Component Name	Quantity	Operation	Container	
D2600-3-BENT-RH	Extrusion Bent RH	1 Ea (1 ea)	90-Start up Operation	5073308	
D2744	Cap	1 Ea (1 ea)	110-Skidtubes	5063642	
D2739	350 I-Beam	1 Ea (1 ea)	160-Skidtubes	5079760	
D2743	Crossbolt Spacer	8 Ea (8 ea)	160-Skidtubes	5082661	
D3490-1	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5065863	
D3490-3	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5066284	
ALS4-1032-225	Rivnut	38 Ea (38 ea)	230-HandFinish	5658138	
AN3C5A	Bolt	34 Ea (34 ea)	230-HandFinish	5057153	
AN3C6A	Bolt	4 Ea (4 ea)	230-HandFinish	5676000	
AN6C44A	Bolt	4 Ea (4 ea)	230-HandFinish	5006333-1	
AN8C35A	Bolt	1 Ea (1 ea)	230-HandFinish	FM1187207	
D2745	Bushing	8 Ea (8 ea)	230-HandFinish	5082489	
D3488-042	Blade Fitting RH	1 Ea (1 ea)	230-HandFinish	5070890	
D3492-1	Plug	8 Ea (8 ea)	230-HandFinish	50771522	
D3492-3	Plug	8 Ea (8 ea)	230-HandFinish	5091849	
D3535-25	Wearplate Center	1 Ea (1 ea)	230-HandFinish	5080560	
D3536-25	Gasket Center	1 Ea (1 ea)	230-HandFinish	5081731	
D3537-1	Wearpad	3 Ea (3 ea)	230-HandFinish	5040788	
D3631-1	Washer	8 Ea (8 ea)	230-HandFinish	5058407	
D3791-1	Wearpad	1 Ea (1 ea)	230-HandFinish	5071379	
D3793-1	Wearplate Fwd	1 Ea (1 ea)	230-HandFinish	5070839	
D3793-3	Wearplate Aft	1 Ea (1 ea)	230-HandFinish	5072081	
D3794-1	Gasket Fwd	1 Ea (1 ea)	230-HandFinish	5071978	
D3794-3	Gasket Aft	1 Ea (1 ea)	230-HandFinish	5046513	
MS21043-6	Nut	4 Ea (4 ea)	230-HandFinish	5083545	
MS21083C8	Nut	1 Ea (1 ea)	230-HandFinish	5050046-1	
NAS1149C0332R	Washer	38 Ea (38 ea)	230-HandFinish	5056493	
NAS1149C0832R	Washer	1 Ea (1 ea)	230-HandFinish	M138409-121	
NAS1515H3L	Washer	4 Ea (4 ea)	230-HandFinish	5036714	
NAS1611-010	O-Ring	8 Ea (8 ea)	230-HandFinish	5049970	
NAS1611-013	O-Ring	8 Ea (8 ea)	230-HandFinish	5077839	
AN8C21A	Bolt	2 Ea (2 ea)	250-Packaging	FM137162	
D2741	Replacement Blade	1 Ea (1 ea)	250-Packaging	5068565	
D3493-1	Washer	2 Ea (2 ea)	250-Packaging	5093455	
D3532-1	Spacer	2 Ea (2 ea)	250-Packaging	5090421	
MS21083C8	Nut	2 Ea (2 ea)	250-Packaging	5050046	
NAS1149D0863J	Washer	2 Ea (2 ea)	250-Packaging	P125635	

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9-89

JUL 27 2018

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2600-3-BENT-RH	1	1	0
110-Skidtubes	D2744	1	86	0
160-Skidtubes	D2739	1	10	0
	D2743	8	86	0
	D3490-1	4	128	0
	D3490-3	4	107	0
230-HandFinish	ALS4-1032-225	38	5,407	0
	AN3C5A	34	1,858	0
	AN3C6A	4	266	0
	AN6C44A	4	351	0
	AN8C35A	1	47	0
	D2745	8	113	0
	D3488-042	1	14	0
	D3492-1	8	88	0
	D3492-3	8	87	0
	D3535-25	1	24	0
	D3536-25	1	31	0
	D3537-1	3	169	0
	D3631-1	8	931	0
	D3791-1	1	20	0
	D3793-1	1	30	0
	D3793-3	1	16	0
	D3794-1	1	21	0
	D3794-3	1	29	0
	MS21043-6	4	200	0
	MS21083C8	1	125	0
	NAS1149C0332R	38	5,536	0
	NAS1149C0832R	1	66	0
	NAS1515H3L	4	199	0
	NAS1611-010	8	569	0
	NAS1611-013	8	365	0
250-Packaging	AN8C21A	2	96	0
	D2741	1	87	0
	D3493-1	2	58	0
	D3532-1	2	40	0
	MS21083C8	2	125	0
	NAS1149D0863J	2	119	0
Part Specifications				
Specifications could not be found.				

Plex 5/14/18 12:53 PM Dart.Gagnon.Michelle

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WORK ORDER

NO. 177525

MAY 14 2018

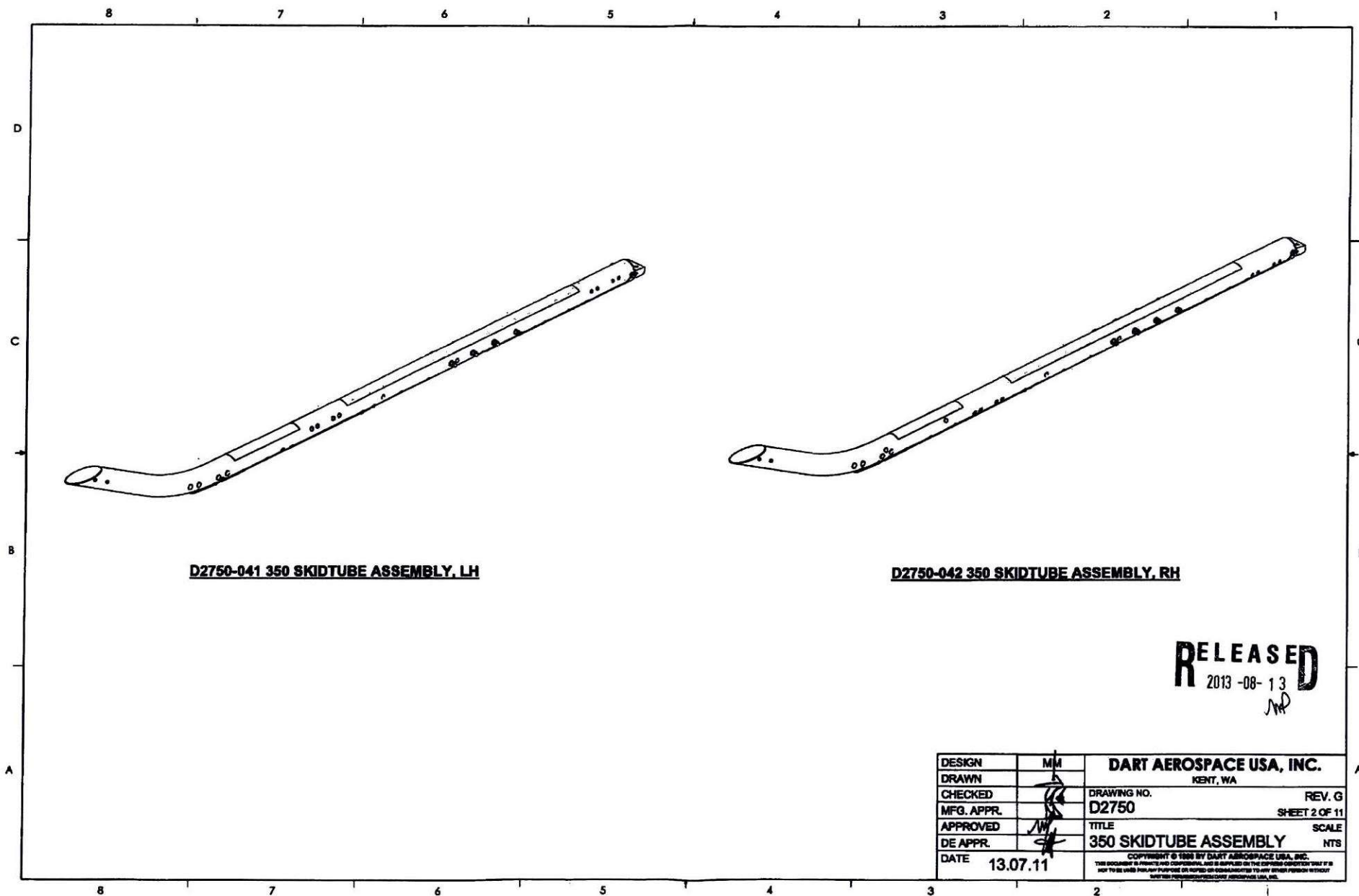
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2013-08-13

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

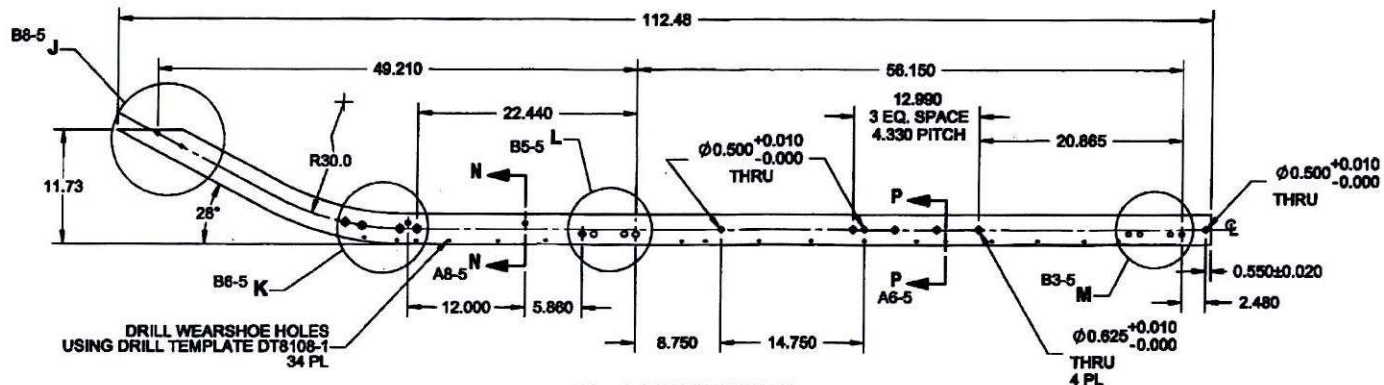
- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

G	CORRECTED TOLERANCE ON $\phi 0.500$ THRU HOLE: IS $+0.010/-0.000$, WAS $+0.100/-0.000$ (ZN B3-4, B2-5); ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS; INSIDE OF TUBE NO LONGER SPRAYED WITH LPS-3; REASON: PAR13-276 AND NCR13-2757	MB	13.07.11
F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/35 (ZN C8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (B PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN6-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN DRAWN	MM	DART AEROSPACE USA, INC.	
		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

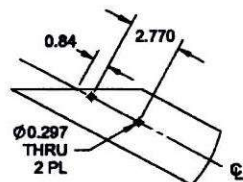


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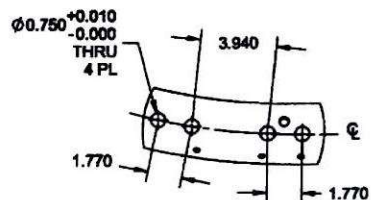
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CHECKED	<i>[Signature]</i>	DRAWING NO. D2750	REV. G
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 11	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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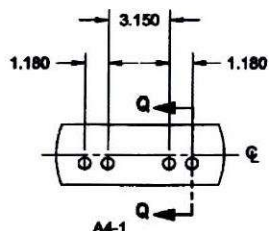
D2750-2 RH SKIDTUBE



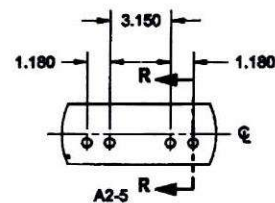
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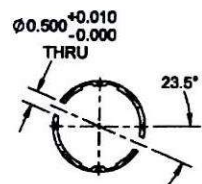
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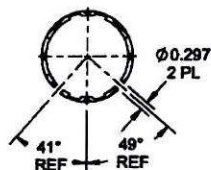
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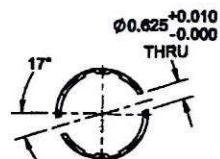
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SCALE 2X



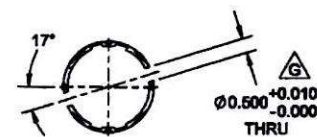
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SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



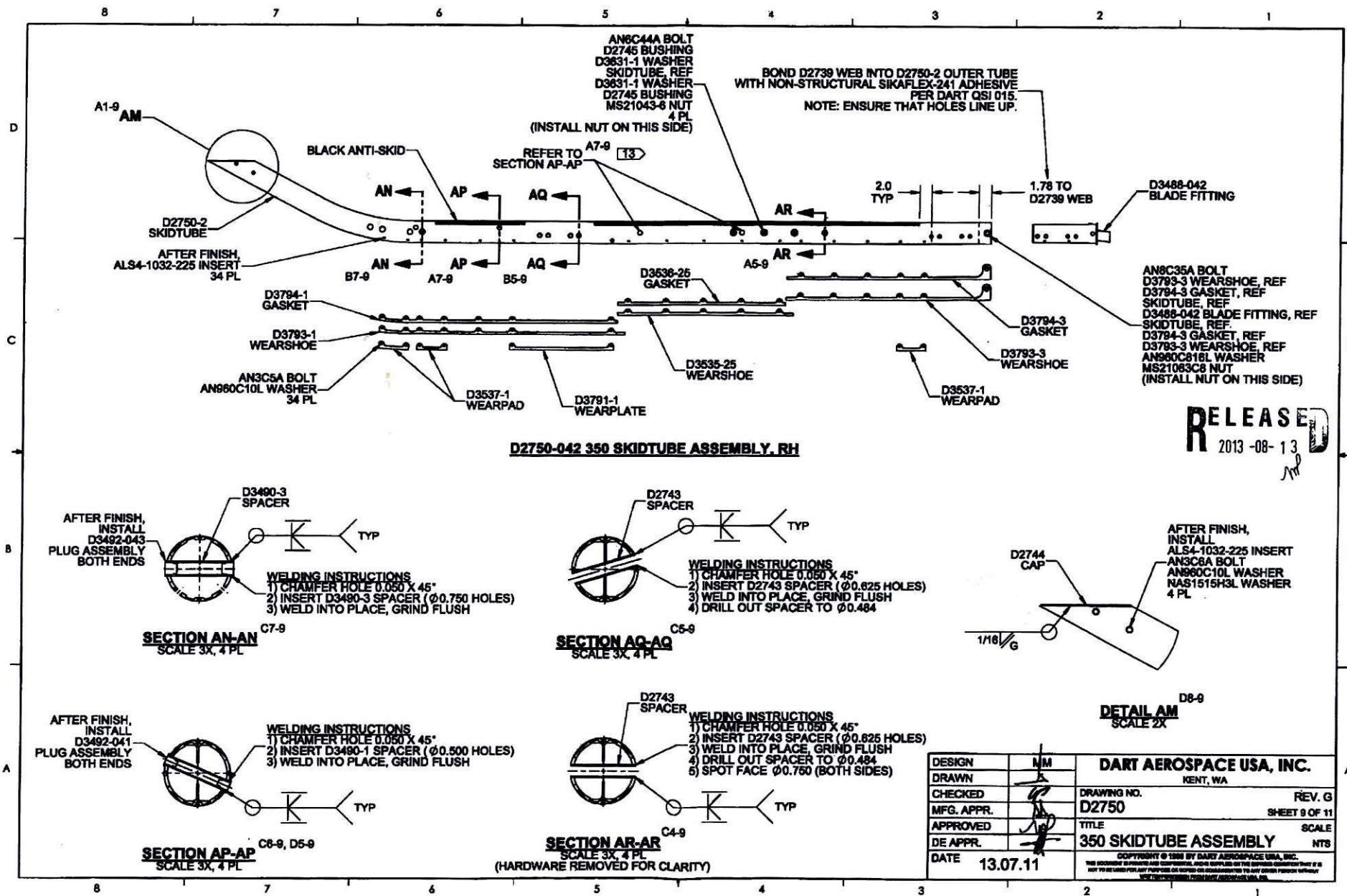
SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

DESIGN	MM	DART AEROSPACE USA, INC.	
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MFG. APPR.		SHEET 5 OF 11	
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DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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